



South Coast Air Quality Management District

Engineering & Compliance

*Policies &
Procedures*

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

MEMORANDUM

DATE: June 29, 1983
TO: All Engineering Personnel
FROM: Sanford M. Weiss, Director of Engineering /s/ SMW
SUBJECT: Toxic Air Contaminants

The attached list represents toxic air contaminants that are most likely to be considered in the near future by an Advisory Committee established by CARB to set acceptable levels in the ambient air. One of the approaches in implementing future rules regarding such toxic air contaminants will be the application of BACT relative to the basic equipment. Therefore, any process wherein the materials identified on the attached list are used or formed in a reaction and resulting potential emissions are significant, the engineering evaluation should include a BACT determination. In addition, the evaluation of such an application should be brought to the attention of the unit supervisor for a determination as to whether modeling and an evaluation of health impacts is appropriate.

RCM:tc
Attachment

Table A-1
LISTING OF TOXIC OR POTENTIALLY TOXIC COMPOUNDS
THAT ARE LIKELY TO BE PRESENT IN AMBIENT AIR IN SIGNIFICANT
QUANTITIES

<u>Compound</u>	<u>Nature of Adverse Health Effect</u>	<u>Basis of Identification</u>		
		<u>CAA</u> <u>SEC</u> <u>112</u>	<u>Study</u> <u>By</u> <u>SAI</u>	<u>Under</u> <u>Study</u> <u>By EPA</u>
Acetaldehyde	respiratory irritant			✓
Acrolein	respiratory irritant			✓
Acrylonitrile	carcinogen ^{1,2}			✓
Allyl Chloride	liver toxicant			✓
Arsenic	carcinogen ¹	✓	✓	
Asbestos	carcinogen ^{1,2}	✓	✓	
Benzene	carcinogen ¹	✓	✓	
Benzyl Chloride	respiratory irritant			✓
Beryllium	carcinogen ^{1,2}	✓		✓
Cadmium	carcinogen ^{1,2}		✓	✓
Carbon Tetrachloride	carcinogen ^{1,2}		✓	✓
Chlorobenzene	liver toxicant			✓
Chloroform	carcinogen ²		✓	✓
Chloroprene	respiratory irritant			✓
Chromium	carcinogen ^{1,2}		✓	
Cresol (all isomers)	skin irritant			✓
p-Dichlorobenzene	liver toxicant			✓
Dialkyl Nitrosamines	carcinogen ²		✓	✓
1-4 Dioxane	carcinogen ²		✓	
Dioxins	carcinogen ²			✓
Epichlorohydrin	carcinogen ²		✓	✓
Ethylene Dibromide	carcinogen ²		✓	

¹ Evidence of carcinogenicity in humans (Reference 3)

² Evidence of carcinogenicity in animals (References 2 and 3)

<u>Compound</u>	<u>Nature of Adverse Health Effect</u>	<u>Basis of Identification</u>		
		<u>CAA SEC 112</u>	<u>Study By SAI</u>	<u>Under Study By EPA</u>
Ethylene Dichloride	carcinogen ²		✓	✓
Ethylene Oxide	carcinogen ¹			✓
Formaldehyde	carcinogen ²			✓
Hexachlorocyclopentadiene	liver & kidney toxicant			✓
Lead	carcinogen ²		✓	
Maleic Anhydride	eye irritant		✓	✓
Manganese	nervous system toxicant			✓
Methyl Bromide	nervous system toxicant, lung irritant			
Methyl Chloroform	anesthetic effects, mutagen		✓	
Methylene Chloride	elevates carboxyhemoglobin		✓	
Mercury	nervous system toxicant	✓		
Nickel	carcinogen ^{1,2}		✓	✓
Nitrobenzene	toxic anemia			✓
Nitrosomorpholine	carcinogen ²			✓
Polycyclic Aromatic Hydrocarbons	carcinogen ¹		✓	✓
Perchloroethylene	carcinogen ²		✓	✓
Phenol	lung, heart, liver & kidney toxicant		✓	
Phosgene	respiratory irritant, mutagen			✓
Polychlorinated Biphenyls	carcinogen ^{1,2}		✓	
Propylene Oxide	irritant, mutagen	✓	✓	
Trichloroethylene	carcinogen ²		✓	✓
Vinyl Chloride	carcinogen ^{1,2}	✓	✓	
Vinylidene Chloride	liver & kidney toxicant			✓
Xylene (all isomers)	respiratory irritant			✓

¹ Evidence of carcinogenicity in humans (Reference 3)

² Evidence of carcinogenicity in animals (References 2 and 3)